

Kachina Village Forest Health Project

Draft Environmental Impact Statement

Coconino County, Arizona

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Abstract: This Draft Environmental Impact Statement (DEIS) describes the effects of implementing five alternatives for improving forest health and reducing wildfire potential on National Forest System land in the Coconino National Forest. The project is adjacent to the community of Flagstaff in northern Arizona. The preferred alternative (Alternative A) would reduce fuels and lower wildfire potential by thinning trees and broadcast burning, and reduce fire risk through improvements in recreation and road management. Thinning would occur on nearly 4,800 acres and broadcast burning would occur on 6,300 acres. Management activities will improve forest health, wildlife habitat, soil and watershed conditions in the area. Alternatives C and D place diameter limits on the size of trees to be thinned. Alternative E treats most of the project area without the use of mechanical equipment and treats the areas immediately adjacent to homes with a more intensive treatment. All alternatives treat the same acres, however, the alternatives vary by diameter limit and intensity of treatments and use of mechanized equipment. The major issues identified during scoping focused on the effects to old growth, wildfire potential, effects on soil, water quality, and wildlife habitat.

Reviewers should provide the Forest Service with their comments during the review period of the Draft Environmental Impact Statement. This will enable the Forest Service to analyze and respond to the comments at one time and to use information acquired in the preparation of the Final Environmental Impact Statement, thus avoiding undue delay in the decision-making process. Reviewers have an obligation to structure their participation in the National Environmental Policy Act process so that it is meaningful and alerts the agency to the reviewer's position and contentions. *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553 (1978). Environmental objections that could have been raised at the draft stage may be waived if not raised until after completion of the Final Environmental Impact Statement. *City of Angoon v. Hodel* (9th Circuit, 1986) and *Wisconsin Heritages, Inc. v. Harris*, 490 F. Supp. 1334, 1338 (E.D. Wis. 1980). Comments on the Draft Environmental Impact Statement should be specific and should address the adequacy of the statement and the merits of the alternatives discussed (40 CFR 1503.3).

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Summary

The Kachina Village Project Area is located south of Flagstaff and continues south of the communities of Kachina Village and Forest Highlands. Interstate Highway 17 and U.S. Highway 89A border the project area on the east and west, respectively. The southern boundary is approximately one half mile south of James Canyon. Kelly Canyon, Pumphouse Wash, James Canyon, and Mexican Pocket are prominent features and locations within the project boundary. The entire project encompasses 10,417 acres: 2,377 acres of private land, 326 acres of state land, and 7,714 acres of Forest Service land.

The Proposed Action proposes to thin approximately 4,800 acres; broadcast burn and maintenance burn the entire project area, except for canyons and steep slope, 6,229 acres; reduce road density; construct several new trails; designate dispersed camping areas and close high fire risk areas to camping. Thinning from below results in the removal of smaller, unhealthy trees first, then progresses until the desired tree numbers are reached.

One clarification to the Proposed Action was to change the description of “old tree” or “yellow barked” trees to the new language that reads “Retain all existing mature ponderosa pine trees or ‘yellow-barked’ trees.” The second clarification, due to a computer error, was to add 50 acres of thinning in unit 335/04 (29 acres) adjacent to private land and in unit 3236/07 (20 acres).

A Notice of Intent to prepare an Environmental Impact Statement (EIS) was published in the Federal Register on March 9, 2001 (PRD 31). Public meetings were held in February, March, and April of 2001 to provide project area information, develop the desired future condition, and discuss local concerns and interests that should be addressed in the Kachina Village Forest Health Project analysis. Over 50 people attended the meetings. In June 2001, a letter providing information and seeking public comment was mailed to approximately 100 individuals and groups. This included Federal and state agencies, Native American groups, municipal offices, businesses, interest groups, and individuals. A total of twelve responses to this initial mailing were received (PRD 93 –Proposed Action Mailing List). Announcements regarding the project were printed in the *Arizona Daily Sun* on March 30, 2001 (PRD 53). Various field trips were held and meetings occurred with members of other agencies.

Significant issues are as follows:

Issue 1: Cutting trees greater than 16-inch diameter would affect future old-growth in the area, resulting in fewer acres being able to qualify as old-growth forest structure in the future.

Issue 2: All project objectives could be met with an 18-inch diameter limit and request that a quantitative analysis be provided.

Issue 3: The Proposed Action does not reduce fuels sufficient to protect the immediate wildland-urban interface. An “intensive treatment zone” around private land is requested for evaluation.

Issue 4: Thinning north of Kelly Canyon as described in the Proposed Action goes beyond what is needed to reduce fire risk. A lighter treatment of 60 to 120 basal area and a 9-inch thinning limit (where a temporary road is needed) is requested for evaluation.

Issue 5: Temporary roads lead to increased soil compaction, transport of exotic weeds, and have long-lasting impacts on forest structure, therefore, we request that no new temporary roads be created even if only for the duration of the project.

Issue 6: Mechanized equipment and excessive thinning will increase soil compaction and cause disturbance to wildlife in areas south of Kelly Canyon. The area south of Kelly Canyon should only be treated with hand thinning and was requested for evaluation.

Alternatives include the Proposed Action (Alternative A), No-Action (Alternative B) and three other action alternatives. The action alternatives are differentiated by changes in intensity of thinning prescriptions¹, the size of the trees to be thinned, and the use of temporary roads. Some items are common to all action alternatives. These include slash treatment and broadcast burning; thinning in Mexican spotted owl Protected Activity Centers; thinning in a wildlife movement corridor; changing some areas to day-use recreation only; adjusting dispersed camping to designated sites in some areas; identifying and constructing trails and trailheads; maintaining some roads and closing others; restoring riparian habitat at a seep; and retaining all existing mature (old or “yellow-barked”) trees.

¹ In all action alternatives, thinning from below results in the removal of smaller, unhealthy trees first, then progresses until the desired tree numbers are reached.

The action alternatives are differentiated as follows:

Alternative A - Proposed Action cutting some trees over 16-inch diameter at breast height (DBH) under specific criteria only.

Alternative B - No Action.

Alternative C - Proposed Action cutting no trees over 16-inch DBH.

Alternative D - Proposed Action cutting some trees over 16-inch DBH under specific criteria only and cutting no trees over 18-inch DBH.

Alternative E - Proposed Action with modifications based on issues of roads and concerns for wildlife habitat posed by the Southwest Forest Alliance.

The action alternatives are differentiated primarily by a limit on the size of tree to be thinned, the intensity of the treatments proposed in thinning units, and the miles of temporary road.

The number of acres where high intensity crown fire is reduced is 4,266 in Alternatives A, C and D and 2,328 in Alternative E. Reducing the risk of high intensity crown fire is important to retaining important human and resource values such as nearby subdivisions, the Oak Creek Watershed, threatened species habitat, recreation opportunities, and scenery. Alternative B does not change expected fire behavior.

Diameter limits affect the ability to create and maintain grassy openings. Alternatives A and D are expected to achieve 5.5 percent of the project area in grassy openings, while Alternative C is expected to result in 3 percent, and Alternative E is expected to result in 1 percent. Alternative B maintains .5 percent of the area in openings. Openings add to biodiversity and are important to grass dependent wildlife species.

All action alternatives continue to provide portions of the project area in dense forest conditions, thus maintaining habitat for species that require dense forest.

The ability of the forest to withstand insect and disease such as bark beetle and mistletoe is improved on 4,266 acres in Alternatives A, C and D and 2,328 acres in Alternative E. Alternative B maintains most of project area in moderate to high risk of damage from insects and disease.

Alternatives A, C, and D improve the Vegetative Structural Stage (VSS) distribution and Alternative E improves VSS distribution to a lesser degree. Under Alternatives A, C, and D, in 50 years, VSS 5 (trees 18 inches and greater) would be 27.5 percent of the project area and VSS 6 (old-growth trees) would be 4.5 percent. This nearly meets the VSS 5 and 6 guidelines in the Forest Plan. Alternative E results in 10 percent VSS 5 and 3 percent VSS 6. Alternative B results in 6 percent VSS 5 and 3 percent VSS 6. All alternatives retain existing mature ponderosa pine trees or old "yellow-barked" trees.

The miles of temporary roads are 5.75 miles in Alternatives A, C, and D and 2.5 miles in Alternative E. Alternative B has no effect from temporary roads. All action alternatives intend to rehabilitate 17.65 miles of existing roadway by closing, scarifying, and revegetating. Alternative B conducts road management according to current guidelines and schedules. Under Alternative E, only 2,330 acres will be mechanically treated or a little over half of the other action alternatives. However, provided that mitigation measures are followed, there will be only minor impacts to on-site soil quality for areas where equipment is used.

All alternatives change some areas to day-use recreation, adjust dispersed camping to designated sites, identify and construct trails and trailheads, and design and maintain an appropriate open road system. Where these actions occur, there would be improved wildlife habitat and watershed conditions and a decrease in the risk of human-caused wildfires.

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